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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/674,827

10/01/2003

Kiyoshi Yoneda

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09/19/2006

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EXAMINER

XIAO, KE

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/674,827

Applicant(s)

YONEDA, KIYOSHI

Examiner

Ke Xiao

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 5-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

Claim 4 is objected to because of the following informalities:

Claim 4 line 1 recites the limitation "gain" which the examiner suggests be changed to -- grain -- as per the applicants detailed specification. For the purposes of prior art rejection, Claim 4 will interpreted as amended.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1 and 2** are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada (US 5,990,629).

Regarding independent **Claim 1**, Yamada teaches an electro luminescent display device (Yamada, Fig. 1), comprising:

a plurality of pixels (Yamada, Fig. 1);

an electroluminescent element provided in each of the pixels (Yamada, Fig. 1 element 11);

a pixel selecting transistor provided in each of the pixels and selecting the corresponding pixel in response to a gate signal (Yamada, Fig. 1 element 13); and

a driving transistor provided in each of the pixels, supplying an electric current to the corresponding electroluminescent element in response to a display signal supplied through the corresponding pixel selecting transistor (Yamada, Fig. 1 element 12),

wherein the pixel selecting transistor comprises an active layer made of polysilicon, and the driving transistor comprises an active layer made of amorphous silicon (Yamada, Col. 7 lines 25-55).

Regarding independent **Claim 2**, Yamada teaches an electro luminescent display device (Yamada, Fig. 1), comprising:

a plurality of pixels (Yamada, Fig. 1);

an electroluminescent element provided in each of the pixels (Yamada, Fig. 1 element 11);

a pixel selecting transistor provided in each of the pixels and selecting the corresponding pixel in response to a gate signal (Yamada, Fig. 1 element 13); and

a driving transistor provided in each of the pixels, supplying an electric current to the corresponding electroluminescent element in response to a display signal supplied through the corresponding pixel selecting transistor (Yamada, Fig. 1 element 12),

wherein a carrier mobility of the driving thin film transistor is lower than a carrier mobility of the pixel selecting thin film transistor (Yamada, Col. 7 lines 25-55).

To elaborate Yamada shows that the selecting transistor is based on polysilicon and the driving transistor is based on amorphous silicon and it is well known in the art that amorphous silicon has lower carrier mobility than polysilicon.

### ***Allowable Subject Matter***

Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding **Claim 3**, prior art fails to teach the combination of "the pixel selecting thin film transistor comprises a first polysilicon active layer and the driving thin film transistor comprises a second polysilicon active layer" and "a carrier mobility of the driving thin film transistor is lower than a carrier mobility of the pixel selecting thin film transistor" as recited from independent Claim 2 from which Claim 3 depends.

Regarding **Claim 4**, it depends directly from Claim 3.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ke Xiao whose telephone number is (571) 272-7776. The examiner can normally be reached on Monday through Friday from 8:30AM to 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 7<sup>th</sup>, 2006 - kx -

  
**SUMATI LEFKOWITZ**  
**SUPERVISORY PATENT EXAMINER**